

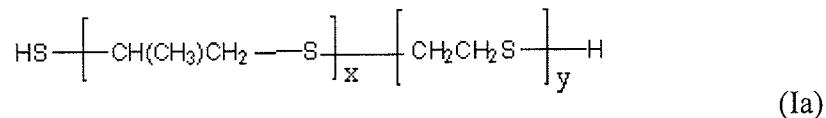
AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

- 1-21. (Canceled)
22. (Currently amended) A transparent, non-elastomeric, polythiourethane poly(thio)urethane/urea material comprising the reaction product of:
 - (a) at least one (α , ω)-diiso(thio)cyanate(α , ω)-diisothiocyanate polysulfide prepolymer, said prepolymer being free from disulfide (-S-S-) linkage; and
 - (b) at least one aromatic primary diamine, in an equivalent molar ratio amine function/iso(thio)cyanateisothiocyanate function (NH_2/NCX , $\text{X}=\text{O}, \text{S}$) ranging from 0.5 to 2, said aromatic primary diamine being free from disulfide (-S-S-) linkage,wherein the (α , ω)-diiso(thio)cyanate(α , ω)-diisothiocyanate polysulfide prepolymer is the reaction product of at least one cycloaliphatic or aromatic diiso(thio)cyanatediisothiocyanate and at least one (α, ω) -diol or dithiol prepolymer, said (α, ω) -diol or dithiol prepolymer being a polysulfide or a mixture of polysulfides.
23. (Currently Amended) The transparent, non elastomeric polythiourethane poly(thio)urethane/urea material of claim 22, wherein the equivalent ratio NH_2/NCX ranges from 0.90 to 1.10.
24. (Previously Presented) The material of claim 22, wherein the equivalent ratio NH_2/NCX ranges from 0.93 to 0.95.
- 25-27. (Canceled)

28. (Previously presented) The material of claim 22, wherein the polysulfide or mixture of polysulfides is a polysulfide of formula:

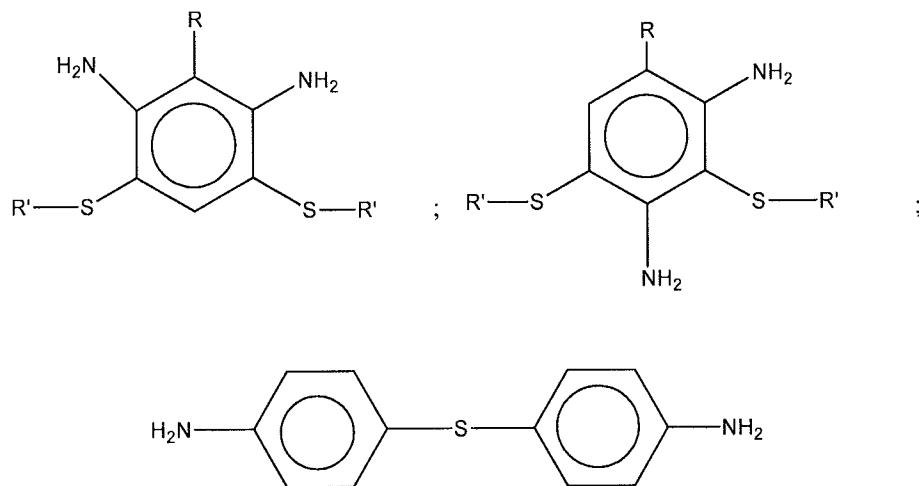


in which x and y are chosen such that the two following conditions are simultaneously satisfied:

- the polysulfide of formula Ia is a prepolymer; and
- the number average molecular weight of the polysulfide of formula Ia is not more than 3000 g mol^{-1} .

29. (Previously presented) The material of claim 22, wherein the aromatic diamine contains at least one S atom in its molecule.

30. (Previously presented) The material of claim 29 wherein the diamine is selected from

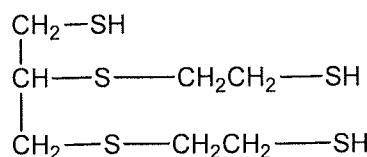
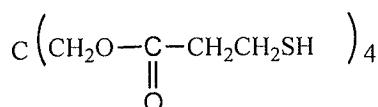
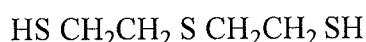


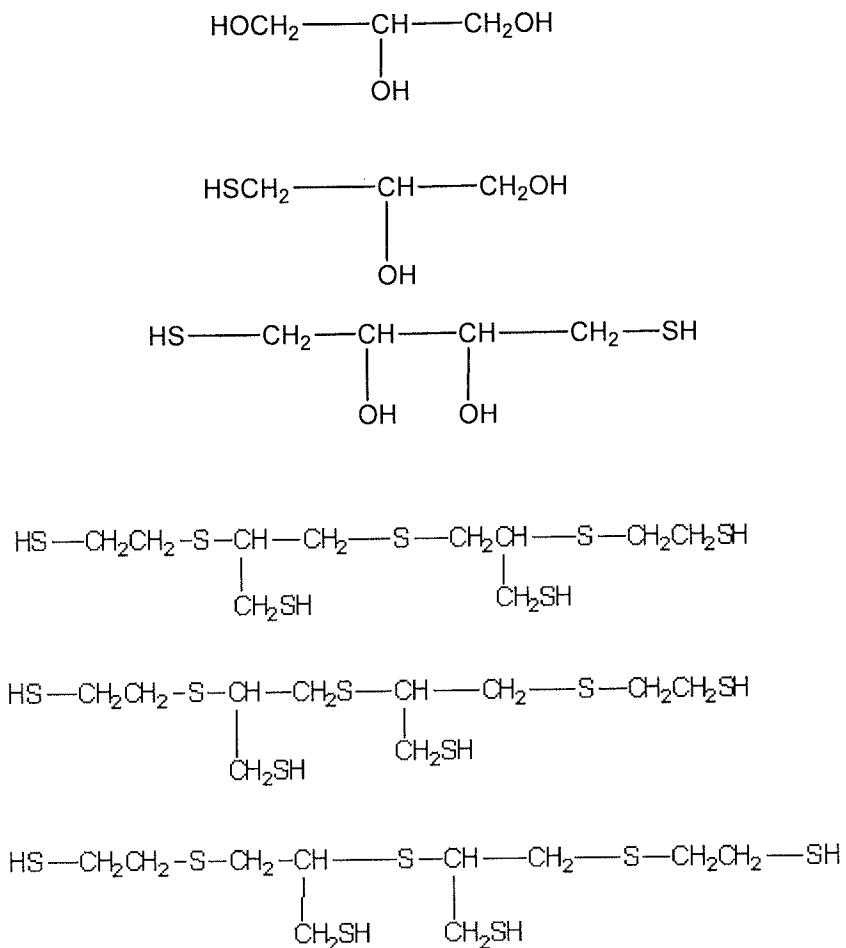
in which R is H or an alkyl group and R' is an alkyl group, and mixtures of the above diamines.

31. (Currently amended) The material of claim 22, wherein the material is the reaction product of:

- a) said at least one (α , ω)-diiso(thio)cyanate(α , ω)-diisothiocyanate polysulfide prepolymer;
- b) said at least one aromatic primary diamine; and
- c) at least one di-, tri-, or tetra alcohol, or at least one di-, tri-, or tetra thiol, or a mixture thereof.

32. (Currently amended) The material of claim 31, wherein the alcohols and thiols are selected from the groupsgroup consisting of:





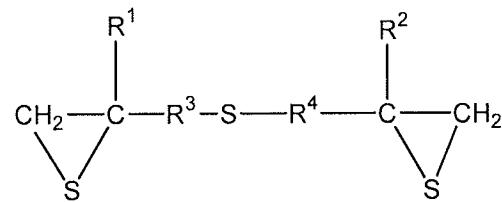
and mixtures thereof.

33. (Previously presented) The material of claim 22 having a refractive index, n_D^{25} , higher than 1.53.

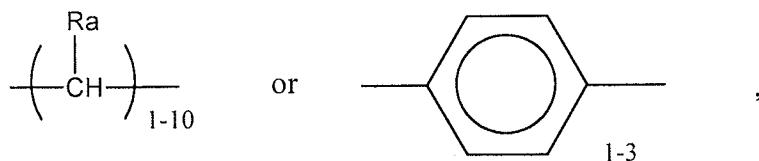
34. (Previously presented) The material of claim 22 having a refractive index, n_D^{25} , of at least 1.55.

35. (Previously presented) The material of claim 22 having a refractive index, n_D^{25} , of at least 1.57.

36. (Previously presented) The material of claim 22, wherein the polysulfide is an hyperbranched polysulfide resulting from the polymerization of a diepisulfide of formula:

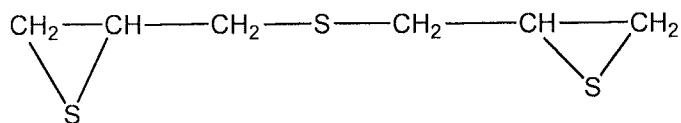


in which R¹ and R² are, independently from each other, H, alkyl, aryl, alkoxy, alkylthio or arylthio, R³ and R⁴ are independently from each other,



R_a designates H, alkyl, aryl, alkoxy, aryloxy, alkylthio or arylthio, with 2-mercaptoproethyl sulfide (DMES).

37. (Previously presented) The material of claim 36, wherein the diepisulfide has formula :

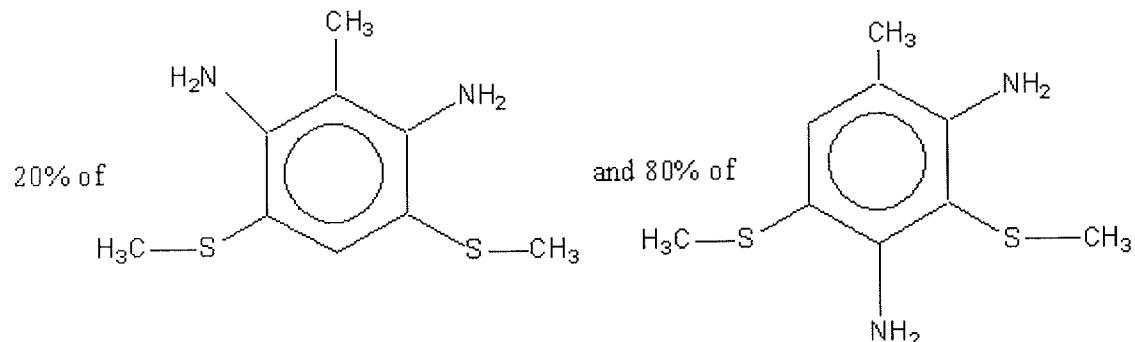


38. (Previously presented) An optical article made from a material according to claim 22.
39. (Previously presented) The material of claim 48, wherein n' is such that the number average molecular weight (\bar{M}_n) of the prepolymer ranges from 650 to 1350 g mol⁻¹.
40. (Previously presented) The material of claim 22, wherein the prepolymer is the reaction product of at least one (α, ω) dithiol prepolymer.

41. (Canceled)

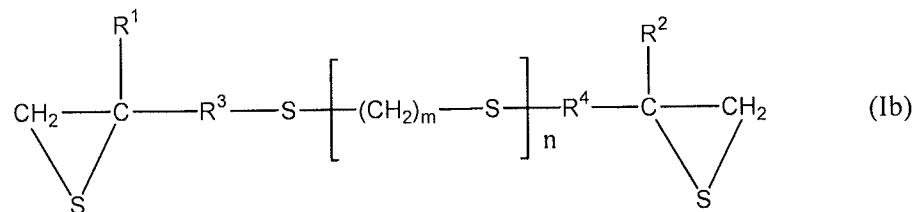
42. (Previously presented) The material of claim 30, wherein R and R' are CH₃.

43. (Previously presented) The material of claim 30, wherein the diamine is a mixture of by weight:

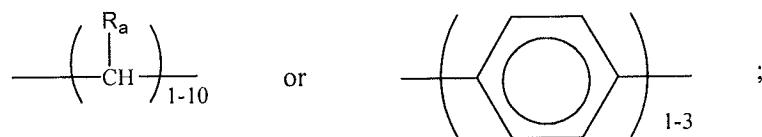


44-46. (Canceled)

47. (Previously presented) The material of claim 22, wherein the polysulfide or mixture of polysulfides is a prepolymer resulting from the polymerization of diepisulfides of formula:



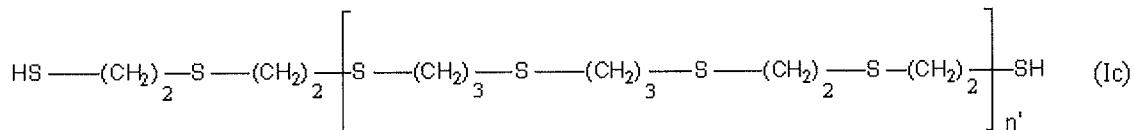
in which R¹ and R² are, independently from each other, H, alkyl, aryl, alkoxy, alkylthio or arylthio; R³ and R⁴ are, independently from each other,



R_a designates H, alkyl, aryl, alkoxy, aryloxy, alkylthio or arylthio and, n is an integer from 0 to 4 and m is an integer from 1 to 6.

48. (Currently amended) The material of claim 22, wherein the polysulfide or mixture of polysulfides is selected from the group consisting of:

-Prepolymers a prepolymer of the formula:



where n' is such that the number average molecular weight (\bar{M}_n) of the prepolymer ranges from 500 to 1500 g mol⁻¹.

49. (Currently amended) The material of claim 22, wherein the at least one (α, ω) -diiso(thio)cyanate(α, ω)-diisothiocyanate polysulfide prepolymer has a number average molecular weight of not more than 3000 g mol⁻¹.